



Resilient Sites at Toronto Community Housing

Briefing Note

DATE	September 30, 2019
TO	Josie Scioli, Deputy City Manager, Corporate Services, City of Toronto
FROM	Sheila Penny, Chief Operating Officer, Toronto Community Housing

SUMMARY

On September 18, 2019, Executive Committee considered item [EX8.11 Sustainable Energy Plan Financing Program Supporting Toronto Community Housing Corporation, Transform TO and Resiliency](#). The report recommends a low-interest repayable loan of \$38.0 million to Toronto Community Housing (TCHC) through the City's Sustainable Energy Plan Financing program to fund 59% of a \$63.9 million undertaking that will replace diesel generators and install Combined Heat and Power (CHP) generators in 39 TCHC buildings across the city. The CHP generators will make TCHC buildings more sustainable and support the City of Toronto's resiliency goals.

The report was amended and Committee Members requested the Deputy City Manager of Corporate Services and TCHC to report to City Council with a list of the 39 buildings where CHP generators are being installed.

This Briefing Note will provide background information on the CHP generators, the resilient sites network and sustainable occupancy, including a list of the 39 buildings that are being upgraded with CHP generators.

BACKGROUND

TCHC is undertaking a comprehensive \$63.9 million project to install CHP generators in 39 TCHC buildings across the city, which has been approved by TCHC's Board of Directors.

The 39 sites receiving CHP generator upgrades will be included in a resilient sites network, with other buildings of sustainable occupancy. In the event of a prolonged power outage, a building with sustainable occupancy means that vital building systems will remain operational, including elevators, heat, garage doors, running water, electricity in community rooms, hallway lighting and security systems. Installing the CHP generators, TCHC tenants can remain sheltered and the buildings can be made available to residents within the wider community during a power outage.

This project will upgrade aging diesel generators that need replacing over the next 5 to 10 years. Replacing diesel with the CHP generators will make TCHC buildings more sustainable, using waste heat from the generation of electrical power to heat the building, which is also expected to offset heating costs.

CHP BUILDING SELECTION

CHP upgrades were selected for 39 buildings across TCHC's portfolio. The selection was based on need and ability to accommodate the CHP system, along with consultation with Toronto Hydro and Independent Electricity System Operator (IESO). Buildings were assessed against the below criteria, in the following order:

1. Generator Replacement in the Capital Plan
 - A list of buildings with aging generators that require replacement was established through the Capital Planning process.
2. Building Size
 - In order to accommodate the CHP generator systems, buildings have to be a specific size. Buildings were selected from the above list based on the size needed to accommodate the CHP system.
3. Consultation with Toronto Hydro
 - Toronto Hydro reviewed the potential list of buildings and eliminated locations with sensitive grid issues.
4. Consultation with IESO
 - IESO reviewed the potential list of buildings and eliminated locations that did not meet their criteria.
5. Building Requiring Immediate Action
 - Locations that required immediate action due to failed systems were expedited for emergency generator replacement.

RESILIENT SITES NETWORK

Installing CHP generators across 39 locations, TCHC will have a total of 56 buildings that are part of the resilient sites network. In addition to the 39 buildings receiving CHP generators, other buildings that have undergone generator upgrades or were part of revitalization projects now have systems that permit sustainable occupancy.

Appendix Item 1 lists all of TCHC's sustainable occupancy buildings. The list has been separated by existing sustainable occupancy buildings and the 39 buildings undergoing CHP generator upgrades.

Appendix Item 2 maps the sustainable occupancy buildings, distinguishing by colour the existing sustainable occupancy buildings and the ones receiving CHP generators.

APPENDIX

[Appendix Item 1](#): List of TCHC Sustainable Occupancy Buildings

[Appendix Item 2](#): Map of TCHC Sustainable Occupancy Buildings

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